ATTACHMENT A
#4 MINE ROCK TUNNELS

This attachment has been included to address the blasting that will occur during the development of the WHR #4 mine portals. All blasting procedures outlined in Apendix 3M will be followed except for the changes that have been outlined below.

Blast Design

Holes will be drilled 10 feet deep . Figures 1,2, and 3 show the typical patterns and the layout for the holes. Eight 0.78lb 1 1/4" diameter by 12" long sticks will be placed in each hole. The explosive to be used is Irecogel B permissible explosive, an explosive which uses a non-nitroglycerin base gel dynamite. Coaldet, Millidet or equivalent electric millisecond delay detonators will be used to delay the holes in the patterns shown. A scorpion HCCR (MSHA LCBU-1) shot firing unit will be used to initiate the detonators.

Pre-Blast Survey

Only two dwellings are located within one-half mile of the blast area. One is the Hunting Cabin owned by Sportsmans and a residential home owned by Kenny Defa the mine superintendent. Both owners have been notified in writing of the blast. A pre-blast survey of both buildings has been conducted and his held on file at the mine site.

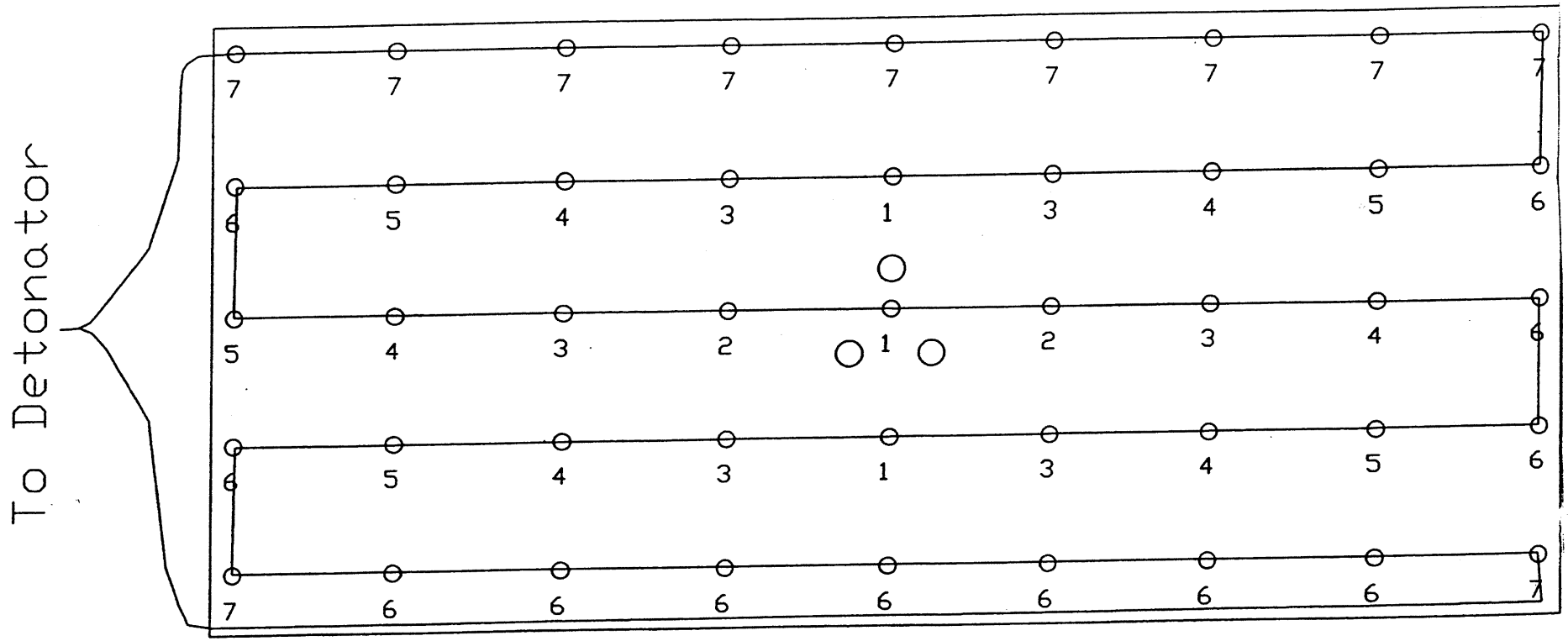
Blasting Schedule

Blasting will be conducted between sunrise and sunset. Blasting will generally take place Monday thru Friday, but may include Saturday and Sunday if needed. A detailed time table will be given to local governments, and residents within one-half mile, and will also be published in the local newspaper at least ten days before blasting begins. If the schedule changes, local governments, residents, and the local paper will be notified. The blasting schedule will contain all information required under R645-301-524.460.

I hereby certify that this blasting plan as been prepared under my supervision in accordance with R645-301-524.

Signature of Certified Blaster 10/16/2003 Date

Figure 1



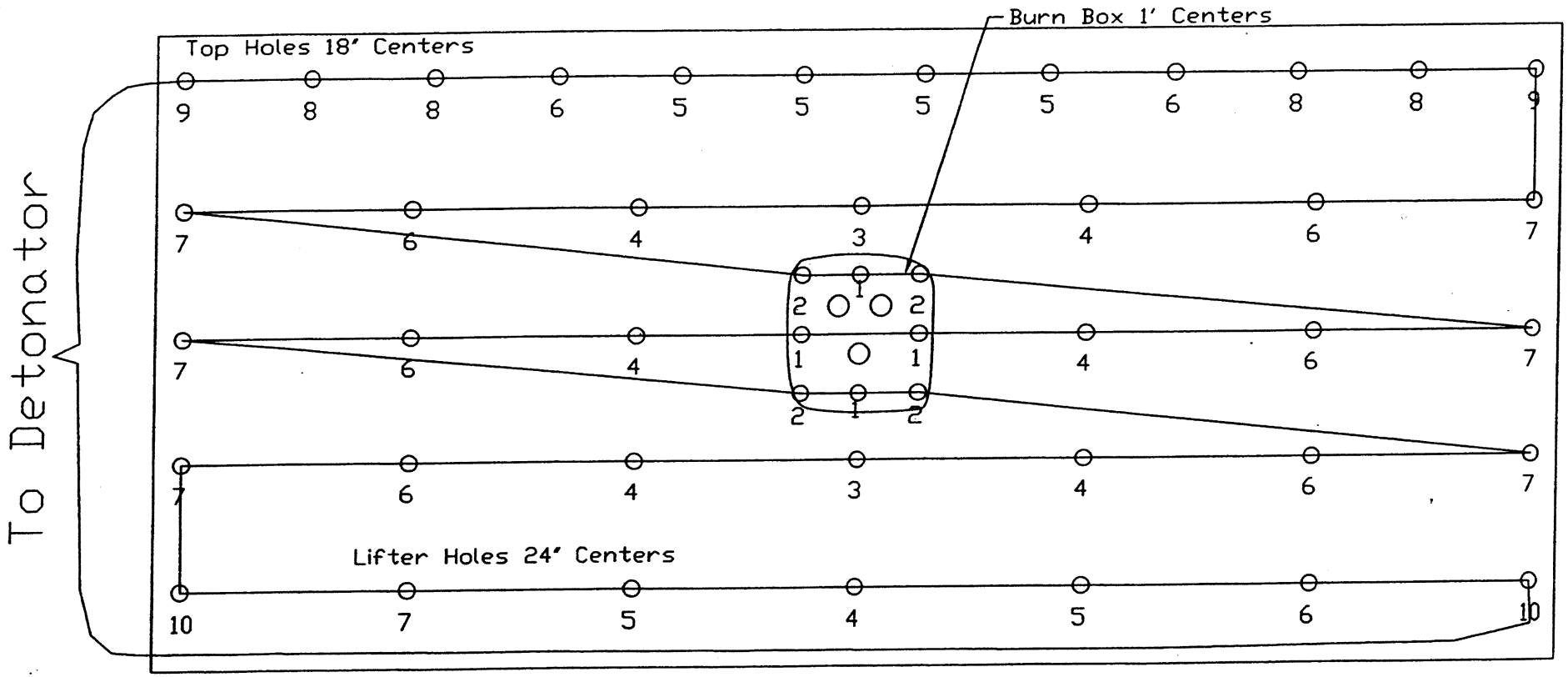
Delay pattern may vary based on conditions
Minimum spacing in coal 2.4"
Minimum spacing in rock 18"

10/13/03

5E-10

B.C.

Figure 2



Delay pattern may vary based on conditions
Minimum spacing in coal 2.4"
Minimum spacing in rock 18"

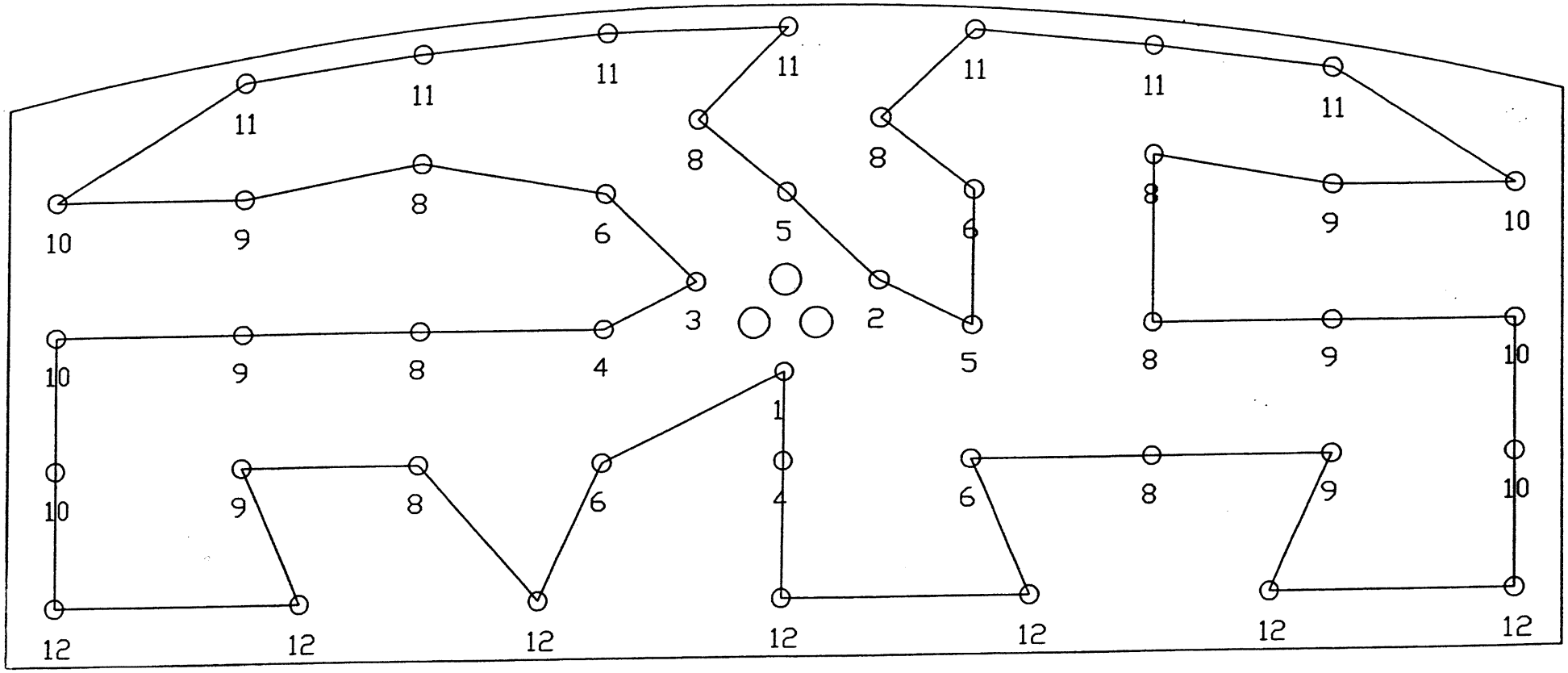
Rib Holes 18' Centers

10/13/03

5E-11

B.C.

Figure 3



Delay pattern may vary based on conditions
Minimum spacing in coal 2.4″
Minimum spacing in rock 18″